

The Impact Of Image-Size Manipulation And Sugar Content On Children's Cereal Consumption

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Etmaal van de Communicatiewetenschap 2015

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Collaboration:

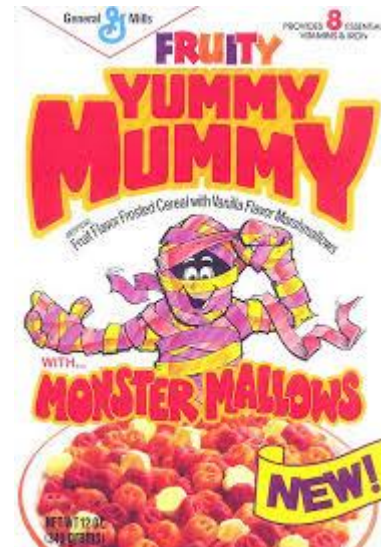
Evvy Neyens

Tim Smits

Background

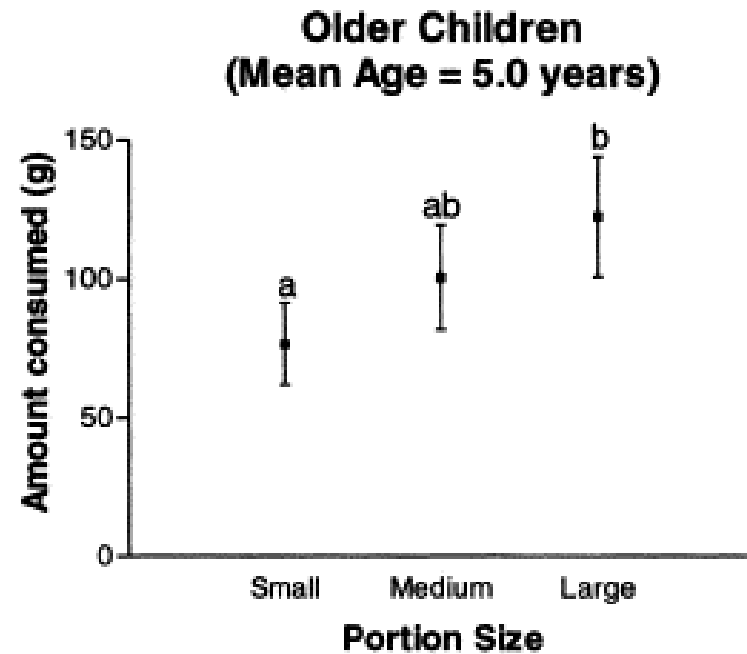
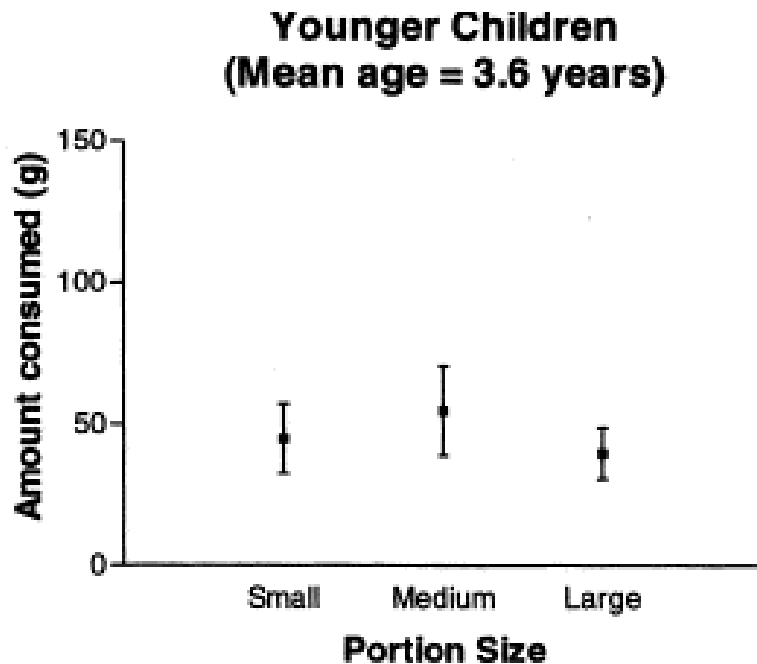
- Lots of food marketing research about attitudes, food preferences of children
- Overview:
 - IOM 2006 report: *Food Marketing to Children*
 - FTC (2008) report: *Marketing Food to Children and Adolescents*
- But few studies about the influence on children's food intake

Examples



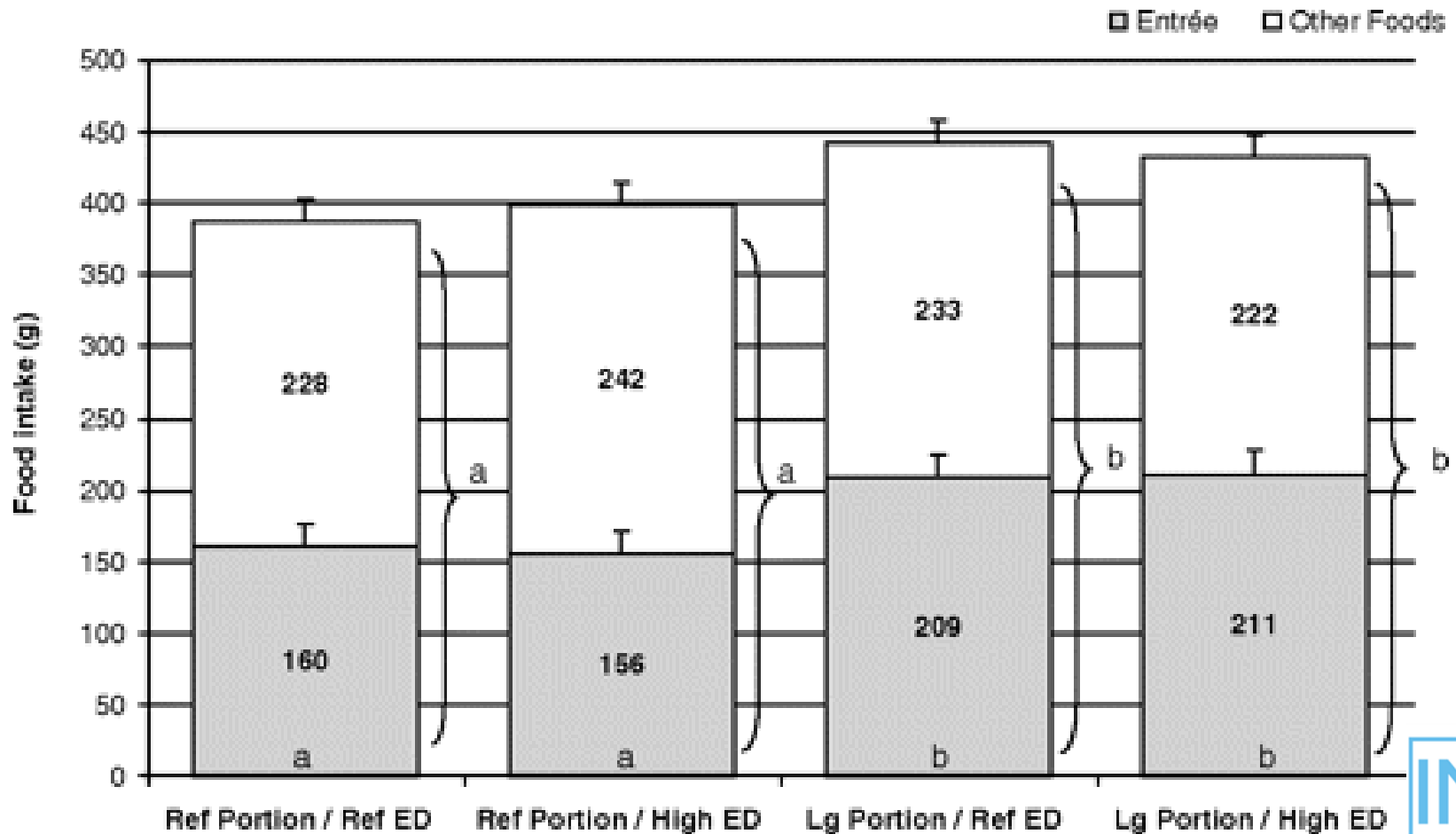
Previous findings

- Rolls, Engell & Birch, 2000



Previous findings

- Fisher, Birch & Rolls, 2007



Why does it work?



- Bigger portions
(Young & Nestle, 2002)
- Larger consumption
norms (Harris, Brownell
& Bargh, 2009)

Method

- Participants:
22 children aging 4-5 from a Flemisch school
- Design:
2 (image-size) x 2 (sugar value) x 2 (group-order)
- Dependent Measures:
 - Poured cereals
 - Consumed cereals
 - Consumed milkMeasurement before and after breakfast

Method

- Independent Measures:
 - Depicted portion size
 - Sugar value
- Covariates:
 - BMI
 - Liking rates
 - Hunger rates

Method

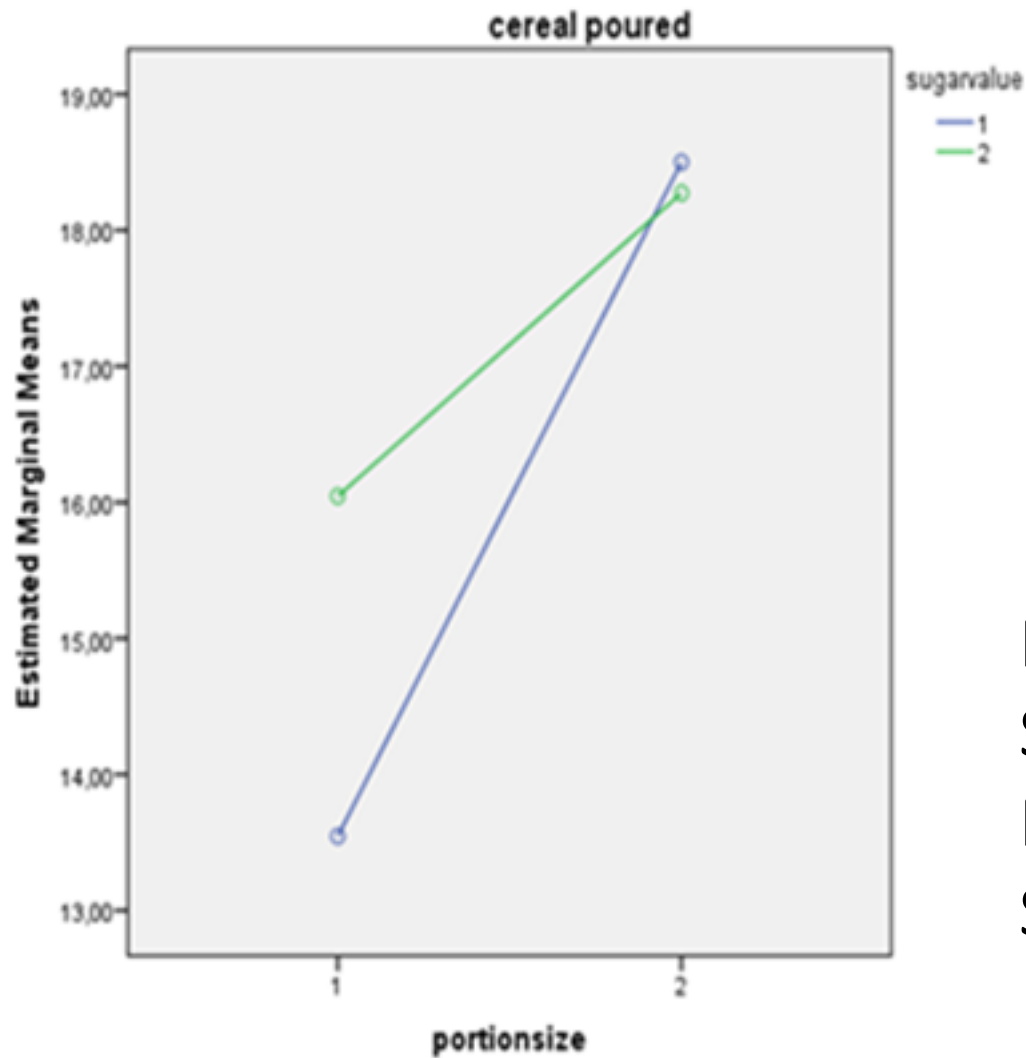
- Procedure
 - Same instruction
 - Eat with classmates
- Manipulated packaging



Results

- Mixed ANOVA:
 - Larger image-sizes prompted children to pour and consume significantly more cereal and drink significantly more milk.
 - No main effects for sugar-value

Results



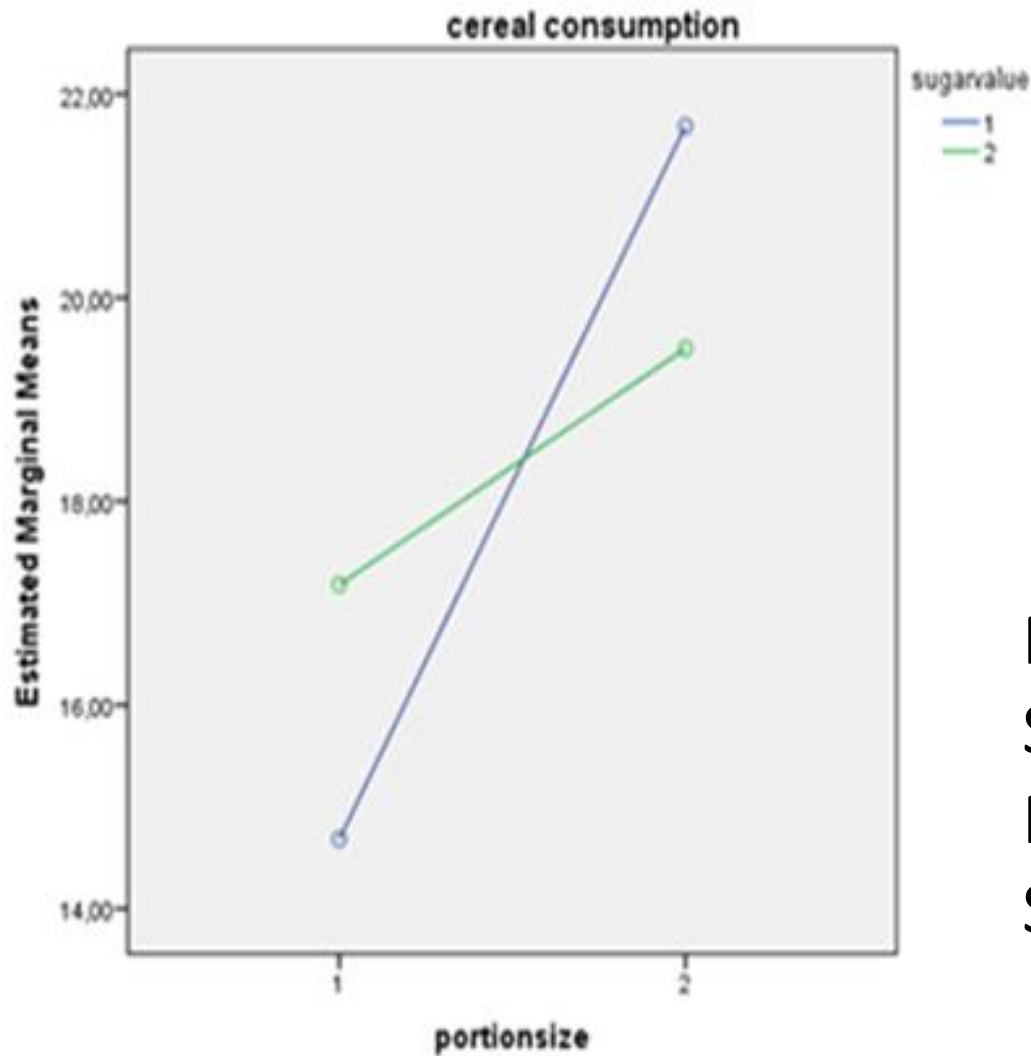
$$M_{\text{small}} = 13.55$$

$$SD_{\text{small}} = 5.97$$

$$M_{\text{larger}} = 18.50$$

$$SD_{\text{larger}} = 5.20$$

Results



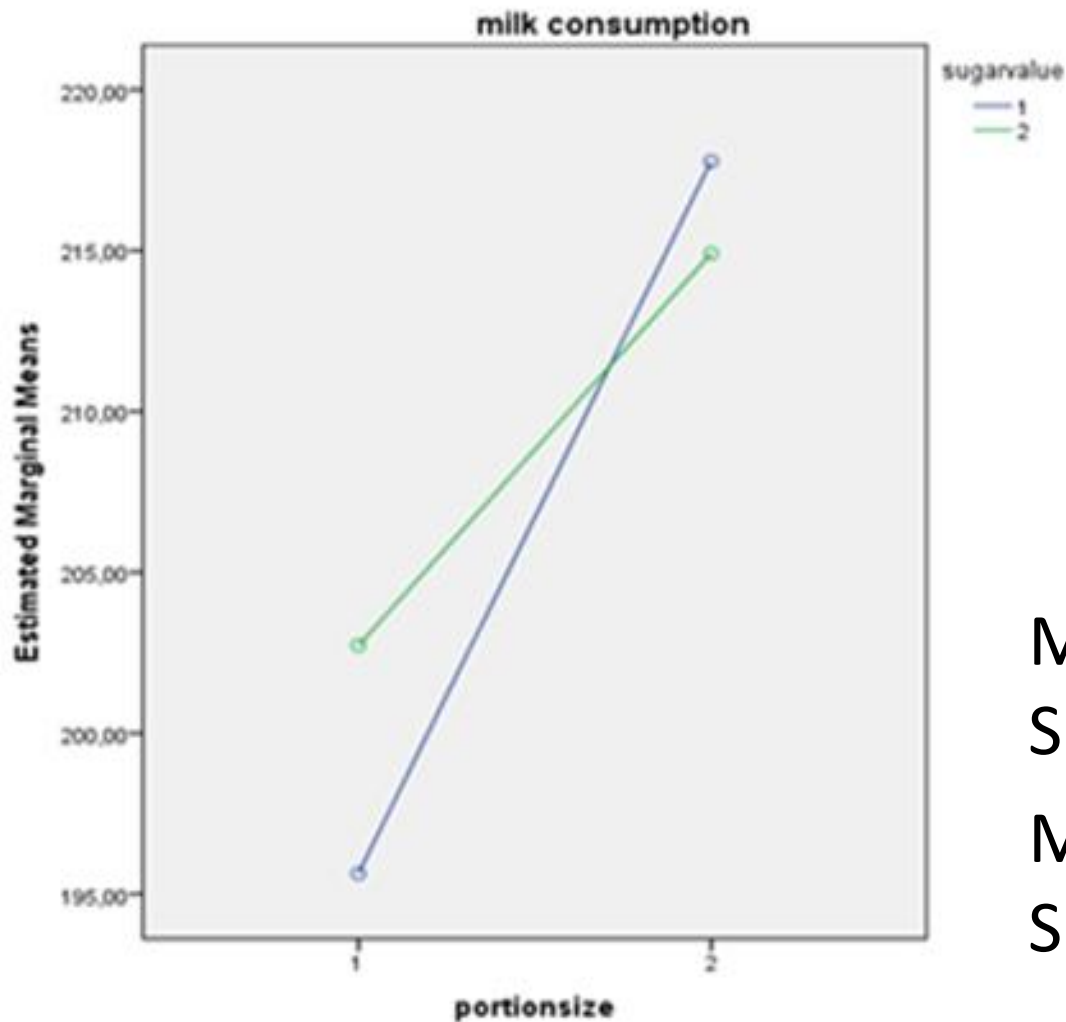
$$M_{\text{small}} = 14.68$$

$$SD_{\text{small}} = 6.62$$

$$M_{\text{larger}} = 21.68$$

$$SD_{\text{larger}} = 6.59$$

Results



$$M_{\text{small}} = 195.54$$

$$SD_{\text{small}} = 13.24$$

$$M_{\text{larger}} = 217.77$$

$$SD_{\text{larger}} = 17.94$$

Conclusion

- Children eat more when exposed to a larger portion on-pack than compared to an appropriate one
- Children get influenced by subtle portion cue

Discussion

- This study...
 - draws attention to children's health
 - underlines effects of subtle marketing
 - helps policymakers to set up a better regulation
 - informs parents, teachers and guardians

Discussion

- Future studies:
 - Control eat behavior
 - Control for socio-demographics
 - Age comparison
 - Food type replication

Take-home message

“Given the issue of obesity among children it may not be appropriate to use larger image sizes of portions on packaging for any food, regardless of nutritional quality to prevent over-eating.”

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